

WHAT WE CLAIM IS:

1. A method for determining AKT protein expression amounts or activation levels in a cell or tissue sample, comprising the steps of:

a) determining the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT protein,

b) staining a second portion of each said cell pellet with a detectably-labeled anti-AKT antibody wherein the detectable label produces an optical density of staining proportional to the amount of AKT protein in the cell pellet,

c) determining the optical density for the AKT protein in the second portion of each said cell pellet,

d) producing a calibration curve of AKT protein concentration to optical density by plotting the concentration of AKT protein as determined in step a) versus the optical density for AKT protein as determined in step c),

e) determining an optical density for AKT protein in the cell or tissue sample,

f) calculating the amount of AKT protein expressed in the cell or tissue sample by comparison of the optical density as determined in step e) and the calibration curve plotted in step d).

2. The method of Claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT2 protein is determined by enzyme-linked immunoabsorbent assay (ELISA).

3. The method of Claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT2 protein is determined by hybridization of high density oligonucleotide arrays with cellular mRNA or cDNA prepared therefrom.

4. The method of claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT2 protein is determined by RT-PCR of cellular RNA or mRNA.

5. The method of claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT2 protein is determined by Northern blot hybridization.

6. The method of Claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT2 protein is determined by immunohistochemical detection.

7. The method of Claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT2 protein is determined by protein microarray

8. The method of Claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT1 protein is determined by enzyme-linked immunoabsorbent assay (ELISA).

9. The method of Claim 1, wherein the amount of AKT protein in a first portion of a cell pellet prepared from at least two cell lines expressing differing amounts of AKT1 protein is determined by hybridization of high density oligonucleotide arrays with cellular mRNA or cDNA prepared therefrom.

10. The method of claim 1, wherein the amount of AKT protein in a first portion of a cell pellet prepared from at least two cell lines expressing differing amounts of AKT1 protein is determined by enzyme-linked immunoabsorbent assay (ELISA).

11. The method of claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT1 protein is determined by Northern blot hybridization.

5 12. The method of Claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT1 protein is determined by immunohistochemical detection.

10 13. The method of Claim 1, wherein the amount of AKT protein in a first portion of each cell pellet prepared from at least two cell lines expressing differing amounts of AKT1 protein is determined by protein microarray.